

FIGURE 1-1

1 ttcaaaacccgattcccaggcgccctattgaagatatggggaagtctcgacgagatcgatgcgggtcgagtgtatg 80
 81 gtgatgtgccgttttgggggaggatgagcgagatagccaagactagcattccgttcccacacagagttgggaatttcta 160
 161 ccaaatccaacacttgcgtattggagcgacgatatgggacgcggaaaaaacacacatccgttggatcaggagttgtacgatg 240
 241 atctcgagccttatgtgtcgaagaatccgagggtatgcttacgtgaactacagggatctcgacatcgggatgaatggagga 320
 321 ggtgaagggtgagaagggtacttatgtgtgaggctaagggtgtgggggagaagtactttgggtcaactttgatcggtt 400
 401 gggtcgggtgaagacgattgttgatcccaataatgtgttcgaacgagcagagcattccctcaattcccaactcggttat 480
 481 aaggatcaatgatcaatgagaattttccctttcccaatgtgattacaagttctattgggtcagctttctcaactgctcctat 560
 561 tcatttagattaattcataaacaactattaatttaccagccttttatccggcccggttgccgatttattttcttaagtttt 640
 641 agatgaaatgaaaccgatttagtttttattgagatgagattaatcttaatttgcttgaaatttactcacggttgatgtga 720
 721 tatttggaaattaactaaaatgataaaatcggataaaaaataaataattt^{I1}aaaaataaaataacataaagaacaata 800
 801 ^{R4}aaataaaataaatttttaattttatttcccttggttttcttctgtatcatacatctcttcttacttctttaaaggctt 880
 881 ttcaattatcacttaataataacaatagataaaatcgtttaattctataacattaaacctatacacttgcacggtgaacaat 960
 961 caatatgataataataataataataattcaattattaatctacaattttttaattataaagtttatgcggtcagtt 1040
 1041 tctgcaagctccgagctccttgtcatcggttagtttctgcggtctcaagggtataacgactcggagcgagcccttctgt 1120
 1121 tccaatggacgggttgcatcttctgcctgcgttgagctcgattggcgtgtcatgctggagtcagagttcctacaaaaaac 1200
 1201 cctaaactagaggtgattaggtgaaattaggtgttggcctgggttccattgtccaaagtttttagtcaacttaaaaaac 1280
 1281 agacttaaatatttatgcttcaaaaatagtttatctgttattatattagcgtgttaattagcttgacaaatgggcccgcgag 1360

FIGURE 1-2

1361 gtacggattcgggaccccgatccccgcccatagtgtaatggctcaactgccaagtcagcattggaccgaaattattggac 1440
 1441 acgaagtactaatgtgaaaaaactttacatttgttatttttactttaaactatgctatttttcaaaaatttgaactttaat 1520
 1521 actatgttttttatatatagtttagtatactttaaatttttatgcaaaattcatctaatgttattgataaaactatttttcgatccgtag 1600
 1601 ctaattatttcgaaggcaagtcaaagtgttattgtggactatgtgagctaataattgaacctttatctctcccaaccactc 1680
 1681 aagttaattgaaccaaactcgatcggttgcggttttcgagctatttcgagccattgttgttatatgcacgtgagatatcaag 1760
 1761 attgacccgaacactttatttatgataaattgtagaaaaaagaaaaacatatattctaagactacatgcataagtgcaaacccct 1840
 1841 gcatgaaagctgctcaacacggtggcatagactcccgccacgtgtccattccacctcatcacctcaccccccacccgttcac 1920
 1921 ctcttattatcacacaatcaatcaatcctactcctcactgaaacaaatccgaccaacttatcccaatatttccca 2000
 2001 aacttgattaatttctcagcaat ATG GAT CAG ACG CAC CAG ACA TAC GCC GGA ACC ACG CAG AAC 2065
 1 M D Q T H Q T Y A G T T Q N 14
 2066 CCG AGC TAT GGC GGC GGC ACA ATG TAC CAG CAG CAG CCG AGG TCT TAC CAG GCG 2125
 15 P S Y G G G T M Y Q Q Q P R S Y Q A 34
 2126 GTG AAG GCG GCC ACT GCA GCC ACC GCG GGT GGA TCC CTC ATC GTT CTG TCC GGT CTC ATC 2185
 35 V K A A T A A T A G S L I V L S G L I 54
 2186 CTT ACG GCC ACC GTC ATT TCA CTC ATC ATA GCC ACC CCT CTC CTT GTC ATC TTC AGC CCT 2245
 55 L T A T V I S L I A T P L L V I F S P 74
 2246 GTT CTT GTC CCG GCT CTC ATC ACC GTC GGC CTC TTG ATC ACC GGG TTT CTT GCT TCC GGT 2305
 75 V L V P A L I T V G L L I T G F L A S G 94
 2306 GGG TTC GGA GTC GCC GGC GTC ACC GTC TTG TCC TGG ATC TAT AG gtagtataagctttggactt 2370
 95 G F G V A A V T V L S W I Y R 109
 2371 tagtattgtataaaataacataagctgatttatgaacatggatctctcccaacaagagttattttaaagcattctcgggtctg 2450

FIGURE 1-3

2451 actcgatcgggttggtttgagctactcggtcacaaatggtcggtgcgctctggatctgttatactaataatttgggaagcc 2530

2531 tgaagtttcatgttgtctgcccccaacttcccactaccttttgagggtgttaagaagccatacaaaaactaatatatgaatccct 2610

2611 cccaacaactcagaactcgagtcagtggttgacggttctctataaacatttcgaaaaatctttgttcaatgaacgtag 2690

2691 aaatgaccatgcttgatgattgtgggtcttataag G TAC GTG ACC GGC GGG CAC CCG GGA GGG 2756
110 Y V T G G H P A G G 119

2757 GAT TCG CTG GAC CAG GCT AGG TCG AAG CTG GCC GGA AAG GCC AGG GAG GTG AAG GAC AGG 2816
120 D S L D Q A R S K L A G K A R E V K D R 139

2817 GCG TCG GAG TTC GCA CAG CAT GTC ACA GGT GGT CAA CAG ACC TCT TAA agagagtcctct 2879
140 A S E F A Q Q H V T G G Q Q T S * 156

2880 agttaaatggtctctctgttttctgtggcggttgtaaactctcttttaagtgtgctgttttctctttgtctcgtgt 2959

2960 gttgtaagtgaagtgtaatcgaaagttccaagttggagatgtttgtaacgatgatgttttctaaataatcagagatatataa 3039
3040 aagggttgctaatttagtatgtcgtctgatctcggaccaaaactcgcaagtaaaattgcagaggatgagttgttacagaaca Poly A signal 3119

3120 agcgtgcattgttctggaagttcatctccttgagccgacctgtgttgcttgcaagtttcgccaaagtcactagacaaatgtt 3199

3200 acgagttaagcctctgtcaaacagatcgctctagcgtcccagaaaaacaccagatttttcgaaaaccatcggtgatcaatt 3279

3280 ttcgattcaaattccgatcttggaagtacttgaacagaaagcatgatgctaaaaagataataagaaaatcgaaagcctagaaaaag 3359

3360 ttgtacagaaaagcaacaagtcaaaaatatagatcaacttcaaaagtttcaaaattacatctttacagaccccccaaaaatgaca 3439

3440 gttaacagaagtcgactaaacagaaaccagcagcttcacctggaatgaaggagcgtttgatcaatccatcctagcttcat 3519

3520 tcccccttgaaaattgcagacagagctctcatctctgctaaagctggtggcttattctttaaccctgcaatcaataagcatga 3599

3600 actaacattggacaccttcatcggcggttgctcgaaaaatcagtgagcgagggattttacctgtgtgtgtagtaacctctc 3679

FIGURE 1-4

3680 tccttgatacaaaatctggaaaattccggcatcaactactgccacctttctgcttaagtgattttatcaccaaggctga 3759
3760 gcgtgattccttgcgctcttgctccgaatcctgatgtatccactgagctttccatctccttctcctccaggccttatgttc 3839
3840 accaatgcgtcctcgccgaacacacactcttggcggtacaaagtgcgagcagggaatccacactctccatcaagtgcagacct 3919
3920 gcaaaccccaataaagaacacaaaactccaaaagtcacgatcaattctccgccttttatgaagaaaaggaaaacttctgggt 3999
4000 acttacggtgccgtcagacacttcataattttagacttgatgatatgtgtccaggaaattccttctcgttctgaattgttgt 4079
4080 gttaacagcaáccctgacagacagaaaagatatcgcaaaatttaagatactgggatgactaggcacagagaaaatgaaatctaa 4159
4160 ttctagaagtaaaaccttattttcccatcacaattctgcccacatagtcgggaacgcagcatccgagcaagaagcaggag 4239
4240 agatgtaatccatgatatcgatgtggatatcggtgaggacgacaaactgaacgttccatcacattgg 4305

1 tctagacatttgacataaacgcgaattR1caagaacacacaacattgactaacaccacccaaaaagaaatagagttagtgaattttggga 80
81 agattaaaatatagaaacaaactgattccttagaaaagaagagatgattagggtgcttcagttcggtctgtgcaggaaatcga 160
161 gatgttcacttatttacattgtcgattcatctccaattgtcctggttcctttactgtgccgacgccttttttgaatccccag 240
241 ttaattcccatacaagtcttccttcagctgcgtagcactgctagctoccaaactggagcgtggagtctactcgttcatgggg 320
321 catcgcaaaggttgccttcattgttctgtaccagccagccaccgcctctcttggttgtgtggacaattgcggtgaagc 400
401 gcgcaagttgacatcccatagtctcgacacattcaccatatggatgtttaaaacgtatatcacgagtgcgatctacatgtc 480
481 ccatcacaccacataaaagcaatagtttggagcttttcataatttgaaacgggcattgacgacttgcctctcgcataaat 560
561 ttaatctttttctcttcagctgattgtgtgcatccattcgggctcagaagcacatcaaaagggatctctccatcgtagt 640
641 attgggtcgtgtcgatgatacgaagcagtcgatgaagtctcctaattgtcgcgagctacaggctccgcaaaagaacccgcga 720
721 ggtagatcgtatgctagtaccccaaaatcagtttgcgtagcgggaatcaacacactagagactcacccataatgcattctcatg 800
801 tgtgatgaacagtttatcatttgtgagcttaggggtcattgtcgcgatgaccccaatgcacattgagcttatgatagaatttg 880
881 aataggaaagcgttttccaccagatcacgaatagctaccccttttttcgggcgccaatttcgggcacacctatcttccacc 960
961 acaacttaaagatgcgatcgggtaaggaaactcacggaccacacacatcgaaataatcttcggtgaccggttcctgttgatca 1040
1041 agtccctcaatttcctcaacctagttcttcaatcgccgctagcgttatccccccgcataatggacttttcatagcgcggagcgt 1120
1121 agccggagacgacgagcaagaaggatgagcggcggcagattgcgggctaaagaaacgagcttcctgccttgctctatggag 1200
1201 gcagatttctgagttgatggatttgtgatgtggacaccttttaatttaagttgatttttttagcacttcattcacg 1280
1281 taattaaaataaattccagtatTTTatatatttttcccttacggttatctaatttttttgaaagattaaaaacttttgatat T2 1360
R4

FIGURE 2-2

1361 aggaagatcatgacacgtcgaagttaagtgaatgagactcctaacaaggtaataaacaagcaggttcataaaaccgaatga 1440
1441 ccttgatccttactaagcttgagatcattgaacatataataataacgttaataatgaaagataagaactttaataataaaat 1520
1521 cattcaaacgagaaactgatacaaaaaaaagcaaacggccaacaaaaataatagacggtggaaggatgatgcagagcc 1600
1601 atccaccctttttccagtttcccttactgcttacttctctatgcataatcacaaagacgccccttgaaaacttgtagtcatg 1680
1681 cagagcccttactgcgcagggtcacgcaccacgtgttactctatcacttctccttctccttcttaagaaccaccacgc 1760
1761 cacctccctctcacaacactcataaaaaaacacacctcttgcatcttcccaagttcaaaattagttcacagctaagcaag 1840
1841 aactcaacaaca ATG GCG GAT CGT ACA ACA CAG CCA CAC CAA GTC CAG GTC CAC ACC CAG CAC 1903
1 1 M A D R T T Q P H Q V Q V H T Q H 17
1904 CAC TAT CCC ACC GGC GGC GCT TTC GGC CGT TAT GAA GGT GGA CTC AAA GGC GGT CCA CAT 1963
18 H Y P T G G A F G R Y E G G L K G G P H 37
1964 CAC CAG CAA GGA TCA GGC AGC GGC CCA TCA GCT TCC AAG GTG TTA GCA GTC ATG ACC GCG 2023
38 H Q Q G S G S G P S A S K V L A V M T A 57
2024 CTC CCC ATC GGC GGC ACC CTC CTT GCC TTG GCC GGG ATA ACC TTG GCT GGG ACG ATG ATC 2083
58 L P I G G T L L A A G I T L A G T M I 77
2084 GGG CTG GCG ATC ACC ACC CCG ATT TTT GTC ATC TGC AGC CCT GTT CTA GTC CCG GCC GCT 2143
78 G L A I T T P I F V I C S P V L V P A A 97
2144 CTG CTC ATC GGC TTT GCC GTG AGC GCG TTT CTG GCC TCG GGG ATG GCC GGG CTG ACA GGG 2203
98 L L I G F A V S A F L A S G M A G L T G 117
2204 CTG ACC TCG CTG TCG TGG TTT GCG AGG TAT CTG CAG CAG GCT GGG CAG GGA GTT GGA GTG 2263
118 L T S L S W F A R Y L Q Q A G Q G V G 137
2264 GGG GTG CCG GAT AGT TTC GAG CAG GCG AAG AGG CGC ATG CAG GAT GCT GCT GGG TAT ATG 2323
138 G V P D S F E Q A K R R M Q D A A G Y M 157

FIGURE 2-3

2324 GGG CAG AAG ACC AAG GAA GTT GGG CAG GAG ATC CAG AGG AAG TCT CAG GAT GTG AAA GCA 2383
158 G Q K T K E V G Q E I Q R K S Q D V K A 177

2384 TCA GAC AAA TAA ggtgataataagggttttgggttcgtgtgttaaaactggtaaaaatggaattcttggttttactg 2459
178 S D K * 181

2460 tacttttgcattagtggaatgaatgagtcttgttctcttcttgttctttaaatacataaagaagaagcagcatttcattgt 2539

2540 tctggttgaatatgtcaagaattcgcaacaataatttagctaaccagttcaatcttacccggttagacgacttcccagtaa 2619

2620 gaaacattccagggtccatccccgtataagagctgtgaccttctgaaaaccttttagaccttggatttggaaaaaagatgaaac 2699

2700 ctttagaataaattacaacgatgccagattgtacaaaactggagtcgagatcatgtaaatagcccataactaagaacccg 2779

2780 gcgatgacaacaattactaggaatatggttggttggtcggtcggttagcgtgatgatttggagaagaatcggggatcc 2859

2860 agaattgtgagaaccgaatcatcgacgaacattaccggcgaggagccatttcaagcaacttttggaaactoctatatggct 2939

2940 gtccagcaggccacctgctcaagaaagaaagagcccatgtcagaaatccttacgaaatctaaactggatgctgatatgaa 3019

3020 tccgccagggtgtcggagttctttacaggcaggatctataaagaagaacatgtttgtattggcattgttgatttcca 3099

3100 agcacgcagcgatctatctccggatcctaacaacaaaaatacggattctgtagaagaaacaaagcgagaaaaacttctgcaac 3179

3180 gaaaccactcgtatatatttggttctgagttggagaaagatgaccatactactgttatgttggtgaacttggattggaaccga 3259

3260 aaattttgagttgaaaagcagtgatcgtatatataaatttcagattcagattagगतatcctatgagagaaggtagagttac 3339

3340 ctgatactacatactgcccatcaggggtaaaaagttgcctcgatggttgtgttggagatggttccaggctaaatccacaa 3419

3420 cgctgaacaaattaaaaagatgaatggatcaatcttcaacccttacttctgcattatgaggattggctcaaggctctctcta 3499

3500 ga 3501

FIGURE 3-1

```
1  tccactatgtaggtcatatccatcttttaattttttggccaccattcaattccatcttgcccttttagggatgtgaatatga  80
    5' primer (1)      AT rich
81  acggccaaggtaagagataaaataatccaaattaaagcaagagaggccaagtaagataaatccaaatgtacacttgtca  160
    AT rich
161  tcgcccgaattagtaaaatacgcggcatattgtattcccacacattattataaaataaccgtatatgtattggtgcatttgc  240

241  atgaataatactacgtgtgaagcccaaaagaccacgtgttagcccatgcaaaagttaaacactcagacccccattcctcagt  320
    RY      G box seed-specific
321  ctccactatataaaacccaccatcccccaatcttacaaaacccaccacacgactcacaaactcgactctcacaccccttaaagaa  400
    TATA      3' primer (1)
401  ccaatcaccaccacaaaaaATGGCAAAGCTGATGAGCCTAGCAGCCGTAGCAACGCGAGTTCCCTCTTCTGATCGTGGTGAC  480
    1      M A K L M S L A A V A T Q F L F L I V V D  21

481  GCATCCGTCCGAACCCACAGTGATTATCGACGAGGAGACCAACCAAGCCGCGGTGGAGGCAAGGTGGCAGGGACAGCAGC  560
22  A S V R T T V I I D E E T N Q G R G G K V A G T A A  48

561  AGTCTGCGAGCAGATCCAGCAGCGAGACTTCTTGAGGAGCTGCCAGCAGTTTCATGTGGGAGAAAGTCCAGAGGGCG  640
49  V C E Q Q I Q Q R D F L R S C Q Q F M W E K V Q R G G  75

641  GCCACAGCCACTATTACAACCAAGGCGGTGGAGGAGGCGAAGAGCCAGTACTTCGAACAGCTGTTGTGACGACCTTA  720
76  H S H Y Y N Q G R G G G E Q S Q Y F E Q L F V T T L  101

721  AGCAATTGGCACCGCGGTGCACCATGCCAGGGGACTTGAAGCGTGCCATCGGCCAAATGAGGCAGGAAATCCAGCAGCA  800
102  S N C A P R C T M P G D L K R A I G Q Q M R Q E I Q Q Q  128

801  GGGACAGCAGCGGACAGCAGGAGAAAGTTCAGAGGTGGATCCAGCAAGCTAACAAATCGCTAAGGACCTCCCCGGAC  880
129  G Q Q Q Q Q Q Q E V Q R W I Q Q A K Q I A K D L P G Q  155
```


881	AGTGCCGCA	CCCCAGC	CTAGCC	CAATGCC	CAGATTCC	CAGGGCC	CAGCAG	CAATCTGC	ATGGTTT	TGA	aggggtgatc	gattatga	960									
156	C	R	T	Q	P	S	Q	C	Q	F	Q	G	Q	Q	S	A	W	F	*	5'primer	(2)	175
961	gatcgtacaaa	gacacactg	ctagggtg	ttaagg	atggata	ataata	ataata	aatgag	atgaa	tgtgttt	taag	tttagtgtaa	1040									
1041	cagctgtaata	aaagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	agagagag	1120
1121	gtatgtttct	tgtgtttt	taaaataa	aatgaa	agcacatg	ctctgt	gtgtgt	gttctatc	gaa	tattc	ggcgggt	ctctgtg	ggga	1200								
1201	aaagtccaga	aaggcg	ccgagctac	tactacta	cacaaagg	ccgtg	gagagg	gggca	acagag	ccagc	acttc	gatagctg	1280									
1281	ctgcgatgat	ctttaag	caattg	aggagc	gagtg	gcacat	gcagg	gggact	ggagc	gtg	caatc	ggccag	atgag	gcagg	gaca	1360						
1361	tccagcagc	agggac	agcagc	aggaagt	tgagagg	tgggtccc	atcaat	ctaa	caagtc	gtaggg	accttc	ccgggac	ag	1440								
1441	tgcggcacc	ccagcct	agccgat	gccagc	tccagg	gggcag	cagcag	tctgc	atggt	tttga	agtgg	tgcgat	cgagat	cg	1520							
1521	tataaagac	actgct	aggtgt	ttaagg	atggg	ataata	aagatg	tgttt	taag	tcat	taacc	gtaata	aaaa	agagag	agag	agag	agag	agag	agag	agag	agag	1600
1601	ctgatgga	aatgtt	atgtat	gtttct	tgtgtt	cttgg	ttttta	aaatt	aaatg	gaa	agcac	atgctc	gtgtg	gggtt	ctatc	3'primer	(2)	1676				

FIGURE 4-1

10 20 30 40 50 60 70 80 90 100
 ctcaagcatacggacaagggttaataacataagtcaccagaaacataataaacaacaaagtgcagaagcaagataaaaaattagctatggacattcaggttc
 110 120 130 140 150 160 170 180 190 200
 atattggaaacatcattatccttagttgtgaccatccttctcctcctgctctagttagaggcccttgaggactaacgagaggtcagttgggtagcagatcc
 210 220 230 240 250 260 270 280 290 300
 ttatcctggactagcctttctggtgttcagagtccttcgtgcccgcgtctacatctatctccattaggtctgaagatgacctttcacaccaacgacgttt
 310 320 330 340 350 360 370 380 390 400
 aaggtctctactactcctagcttgcaatacctggcttgcaatacctggagcatcgtgcacgatgattggatactgtggagaggaggtgtttgctgatt
 410 420 430 440 450 460 470 480 490 500
 tagagctcccggttggtgatttgacttcgatttcagtttaggctgttgaaatttttcaggtccattgtgaagccttttagagcttgagcttcccttcca
 510 520 530 540 550 560 570 580 590 600
 tgттаatgccttgatcgaaattctctctagagaaaagggaagtcgatctctgagtatgaaatcgaaagtcacattttttttcaacgtgtccaatcaatcca
 610 620 630 640 650 660 670 680 690 700
 caaacaagcagaagacaggtaattctcactatactatactgacaagtaatagtcttaccgtcatgcataataacgtctcgttccctcaagagggttttc
 710 720 730 740 750 760 770 780 790 800
 cgacatccataacgacccgaagcctcatgaaagcattagggaagaacttttggttcttctgtcatggccttttataggtgtcagccgagctcgccaattc
 810 820 830 840 850 860 870 880 890 900
 ccgtccgactggctccgcaaaatattcgaacggcaagttatggacttgcaaccataactccacgggtattgagcaggacctattgtgaagactcatctcat
 910 920 930 940 950 960 970 980 990 1000
 ggagcttcagaatgtggtgtcagcaaaccaatgaccgaaatccatcacatgacggacgtccagtggtgagcgaacgaacaggaagcgccctatctt
 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100
 cagagctgtgagctccacacccggttcgggcaactacgtgttggtggcaggttcgcgtattagagatatgttgaggcaagaccatctgtgccactcgta
 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200
 caattacgagaggtgtttttttgtgatttttccctaagttttctcgttggtgagctcatattctacatcgatggtctctcaacgtcgtttcctgtcat

FIGURE 4-2

1210 1220 1230 1240 1250 1260 1270 1280 1290 1300
 ctgataccccgtcatttgcatccacgtgcccgcctcccggtcccaagtccttagtgatgacgcccgaattgggtggcggtgctgcccctgtgctt
 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400
 cttaaccgatgggtggaggttgagtttgggggtctccgcggcgatggtagtgggttgacgggttgggtgacggcattgatcaaatcttactcttgc
 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500
 ttcaaatctttggcagaaaaacaattcattagattagaaactggaaaccagagtgatgagacggattaaagtcagattccaacagagttacatctcttaaga
 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600
 aataatgtaacccctttagacttttatattttgcaattataaaataatttaacttttagactttatatagttttaataactaaagttaaccactcta
 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700
 ttatttatatcgaaactattttgtatgtctccccctctaaataaaacttggattgtgtttacagaacctataatcaataataactcaactgaagtgtg
 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800
 tgcagttaattgaagggttaacgcccgaataatgcactagattatcaaccgaatagattcacactagatggccatttccatcaatatcatcgccgttctt
 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900
 cttctgtccacatatccctctgaaacttgagagacacctgcacttcattgtcccttattacgtgttaaaaaatgaaacccatgcatccatgcaaaactgaa
 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000
 gaatggcgcaagaacccttccccctccatttcttatgtggcgaccatccatttccaccatctccccgtataaaacaccccccatcacttcacctagaaacatca
 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100
 tcactactgttattccatccaaaagataaccaccaccATGGTAGATCATCAAGCCCTTGTCTCTCACTCTGCAATTTTGGCCATTCTCTCCACTCTTC
 TCTGGGTAGCAGCAATTCCAGCAGGGGAACGAGTGCAGATCGACAGGATCCGAGCGGACAAAACCATCCAGGAGAGAGCTGGCACCATC
 L G R Q Q F Q Q G N E C Q I D R I D A S E P D K T I Q A E A G T I
 2110 2120 2130 2140 2150 2160 2170 2180 2190 2200
 GAGGTATGGGACCAGAACCCGACGAATTCAGTGGCTGGTGTGGCGTTGTAAGCGGCACCATTTAGCCCAAGGTTCTTCTTGCCTTTCTACACCA
 E V W D Q N R Q Q F Q C A G V A V V R R T I E P K G L L L P F Y S
 2210 2220 2230 2240 2250 2260 2270 2280 2290 2300
 GAGGTATGGGACCAGAACCCGACGAATTCAGTGGCTGGTGTGGCGTTGTAAGCGGCACCATTTAGCCCAAGGTTCTTCTTGCCTTTCTACACCA
 E V W D Q N R Q Q F Q C A G V A V V R R T I E P K G L L L P F Y S

ABRE
 R1
 R2
 CAAT
 TATA
 Legumin Vicilin
 Signal sequence
 M A R S S S P L L L S L C I F A I L F H S S

FIGURE 4-3

2310 2320 2330 2340 2350 2360 2370 2380 2390 2400
ACACCCCTCAGCTCATCTACATCGTTCAAGgtataaaattaaatcagttcatacaaatgataaaccaccacttcgaatgtatttatcaaatatcaatgatcga
N T P Q L I Y I V Q

2410 2420 2430 2440 2450 2460 2470 2480 2490 2500
tgcacctgtatgtgtgtatattcagTAGGGGAGTTACAGGAATCATGTCCCAKATGTCCAGAGACATTCCAGGAATCCAGCAGCAAGGACAAC
G R G V T G I M F P X C P E T F E S Q Q Q G Q

2510 2520 2530 2540 2550 2560 2570 2580 2590 2600
AGGGCCACAGGGTAGTTCCCAAGACAGCACACCAGAAAGATCCGCCGCTTCGTGAAGGTGACGTCAATTGCCGTCCCTGCCGTGTAGCCCACTGGTCCTA
Q G Q Q G S S Q D Q H Q K I R F R E G D V I A V P A G V A H W S Y

2610 2620 2630 2640 2650 2660 2670 2680 2690 2700
CAACGATGGCAACGAACCAAGTCATGGCCATTGTTGTCCATGACACTTCCAGCCACCTCAACCAACTGGACAACAACCCAGGgtatataagcattgccgt
N D G N E P V M A I V V H D T S S H L N Q L D N N P R

2710 2720 2730 2740 2750 2760 2770 2780 2790 2800
agttgctaataaattgcacacaattggaactctatttcagtatctaataacttttcccttttttgccagAACTTCTACTTGGCAGGAAACCCGAGAGAC
N F Y L A G N P R D

2810 2820 2830 2840 2850 2860 2870 2880 2890 2900
GAGTTCGAACAATCGCAGCAAGAGGCAGGCTAGCCCTGGGGAGAGTGAAGTGGACGAGGACCGAGGGAACCTCTTCAACCTGCAACAACCTCTTCTT
E F E Q S Q Q G G R L S R G E S E G G R G R E P L Q P A T T S S

2910 2920 2930 2940 2950 2960 2970 2980 2990 3000
GCGGAATCGACTCCAAGCTCATCGCGGAGGCGTTCAATGTGACGAGAACCTGGCAAGGAGGTACAGAGCGGAGAACGACAACAGAGGCCAGATCGTCCG
C G I D S K L I A E A F N V D E N V A R R L Q S E N D N R G Q I V R

3010 3020 3030 3040 3050 3060 3070 3080 3090 3100
AGTCGAAGCGAGCTCGACATCGTCAGACCTCCGACAGTATCCAGAGGAGTCCAGGAGGACGAGGAGGTCTGTGGTGGTGGCCGCTACTACTCCAATGGA
V E G E L D I V R P P T S I Q E E S Q E Q G G R G G G Y Y S N G

3110 3120 3130 3140 3150 3160 3170 3180 3190 3200
GTGGAGGAGACCTTCTGCTCCATGAGACTAATTGAGAACATCGCGGATCCTTCTCGGGCAGACATTTTCACTCCAGAGCGGCCGCTTAGATCCCTCA
V E E T F C S M R L I E N I G D P S R A D I F T P E A G R V R S L

FIGURE 4-4

3210 3220 3230 3240 3250 3260 3270 3280 3290 3300
ACAGCCACAACCTCCCGTCTGCAATGGATCCAGCTTAGCGCCGAGAGAGCGGTTCTCTACAATgtatagatctcactcacgcaccaactctctaaattga
N S H N L P V L Q W I Q L S A E R G V L Y N
3310 3320 3330 3340 3350 3360 3370 3380 3390 3400
atccctaattatttaattcaccgatatactgaccgacccggtttgtaatttttagGAAGCGATCAGGCTGCCGCACTGGAACATCAACGCACACAGCATAGT
E A I R L P H W N I N A H S I V
3410 3420 3430 3440 3450 3460 3470 3480 3490 3500
GTACCGGATCAGAGGACAGCCAGAGTCCAGATCGTGAACGAGGAGGAATTCCGGTGTTCGATGGAGTGTGCAGGAAGGACAGGTGGTGACGGTGCCG
Y A I R G Q A R V Q I V N E E G N S V F D G V L Q E G Q V V T V P
3510 3520 3530 3540 3550 3560 3570 3580 3590 3600
CAGAACTTCGCGGTGGTAAAGAGATCCCAGAGCGAGAGGTTTGAGTGGTGGCGTTCAAGACCAACGACAAACGCGATGGTGAACCTCGCTAGCCGGGAGGA
Q N F A V V K R S Q S E R F E W V A F K T N D N A M V N S L A G R
3610 3620 3630 3640 3650 3660 3670 3680 3690 3700
CATCGGCAGTAAGGGCGATCCCGCGGATGTACTGGCTAACGCCCTGAGGGGTGTGCCGCGAGGAGCGGAGGGTGAAGTTCAACAGGAGGAGACTCA
T S A V R A I P A D V L A N A W R V S P E E A R R V K F N R Q E T H
3710 3720 3730 3740 3750 3760 3770 3780 3790 3800
CTTGGCTAGCACAGGGGCCAGTCCAGGTCCCGCGGAGGTTGAATCGTCAAGGAGGTGATCAACTTGCTTATGTAaaatgtgacggtgaaataataa
L A S T R G Q S R S P G R L N V V K E V I N L L M *
3810 3820 3830 3840 3850 3860 3870 3880 3890 3900
cggtaaaatataatgtaataataataaagccacaaagtgagaatgaggggaagggaatgtgtaatgagccagtagccggtggtgtaattttg
3910 3920 3930 3940 3950 3960 3970 3980 3990 4000
tatcgtattgtcaataaatcatgaattttgtgttttttaaatcatgaatttttaaaattttataaaataatctccaatcggaagaacaac
4010 4020 4030 4040 4050 4060 4070 4080 4090 4100
attccatatccatggatgtttcttttaccacaaatctagtctcttgagaggatgaagcatcacggaacagttctgcaactatccctcaaaagcttttaaaatga
4110 4120 4130 4140 4150 4160 4170 4180 4190 4200
acaacaaggaaacagagcaacggtccaaagatccaaacgaaacataattatctataactataattattataattactactgccccggaatcaccaatccct

FIGURE 5

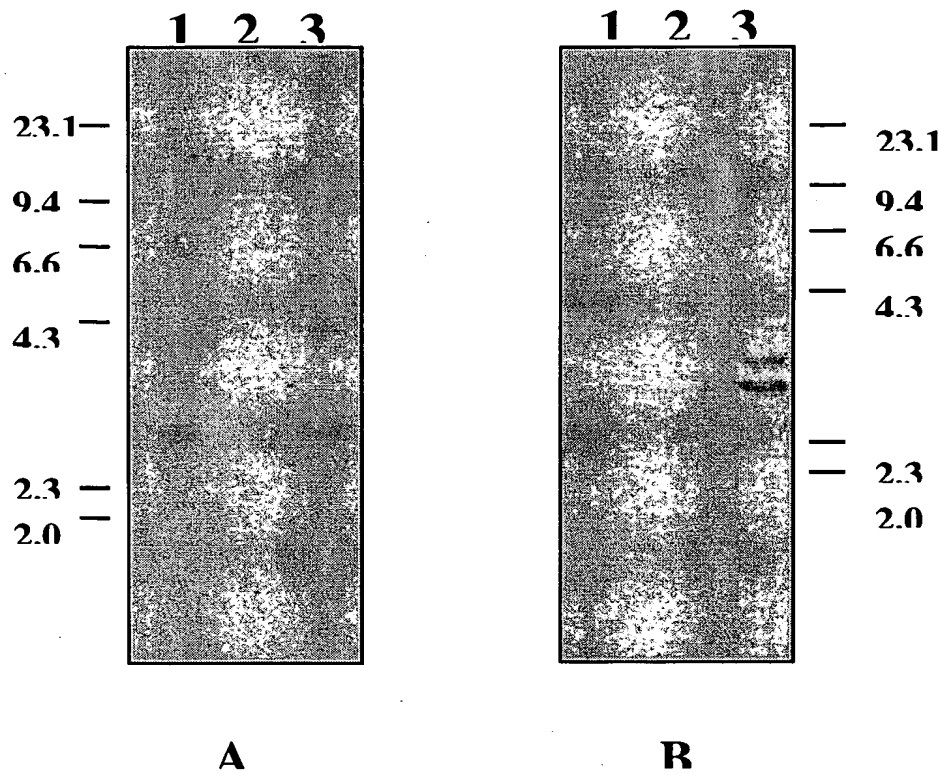


FIGURE 6

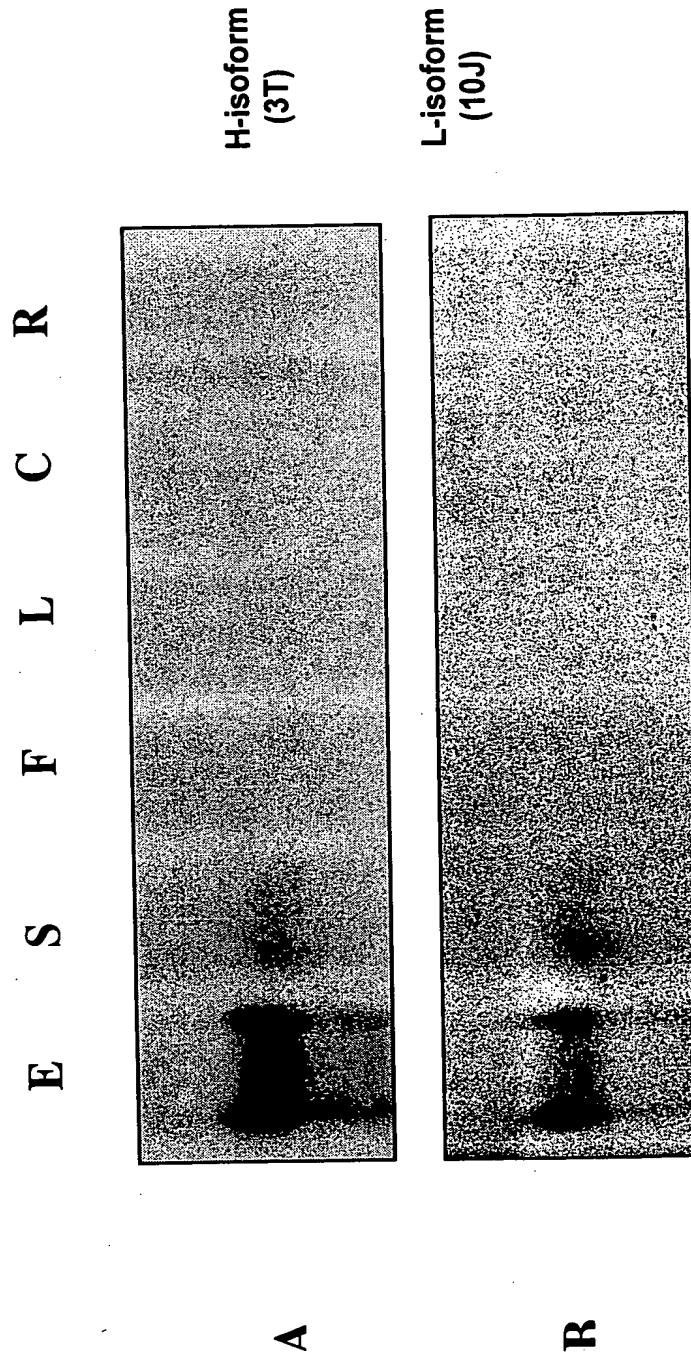


FIGURE 7

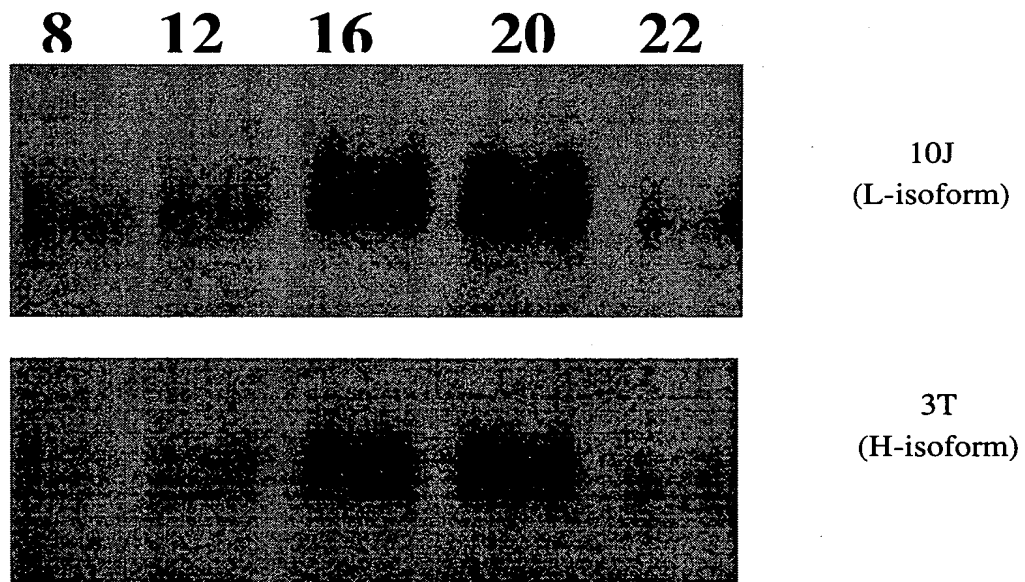


FIGURE 8

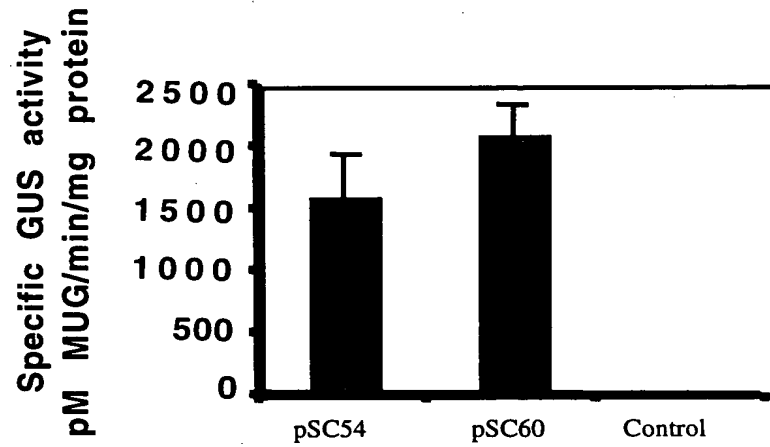


Figure 9.1

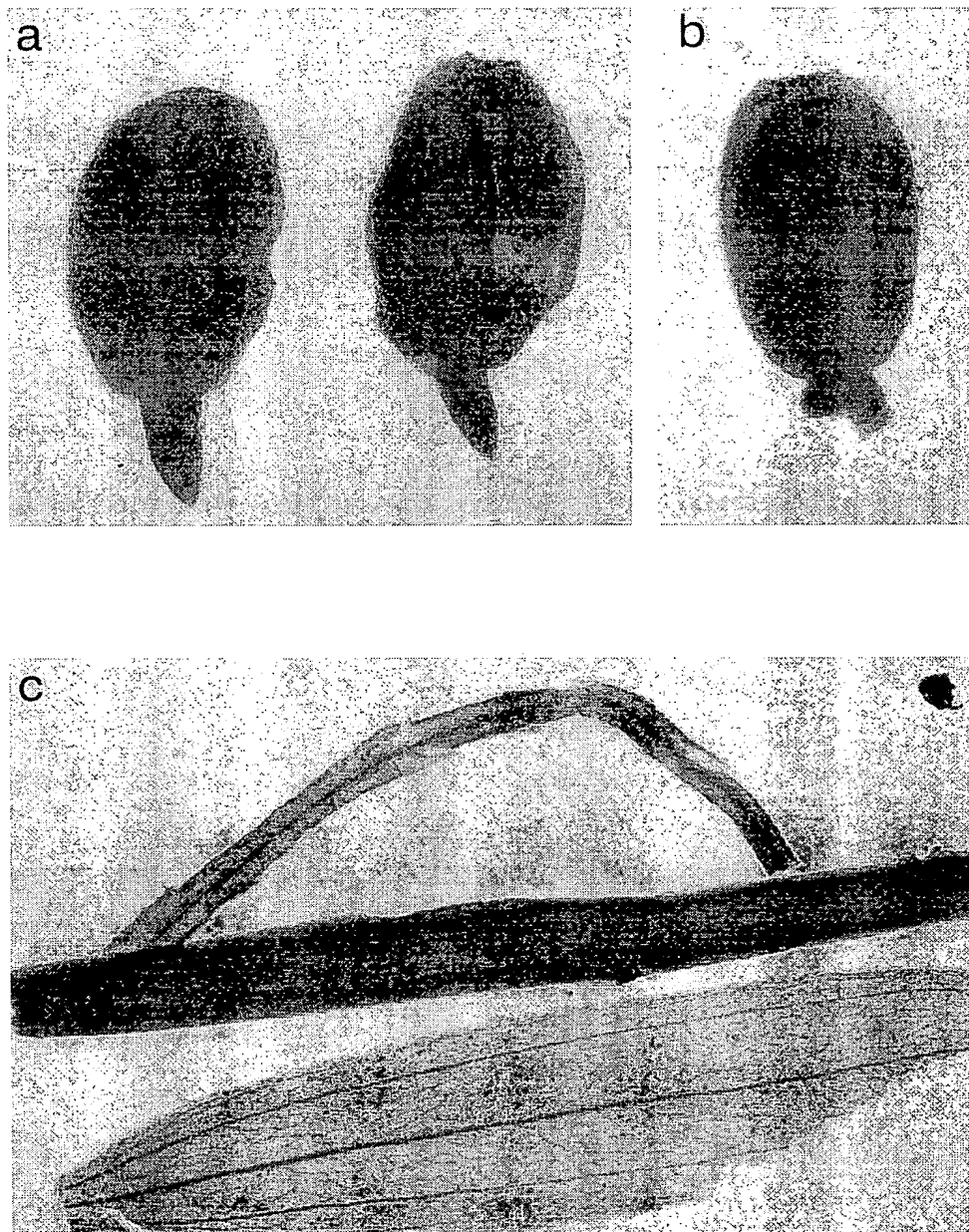


Figure 9.2

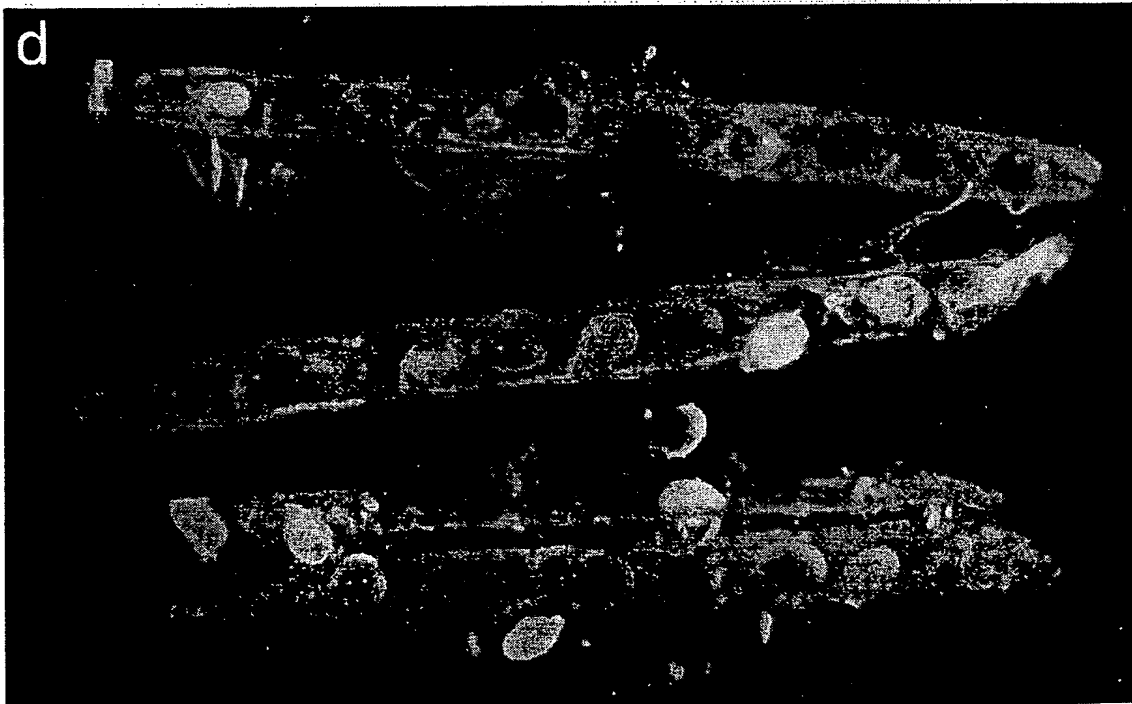


FIGURE 10

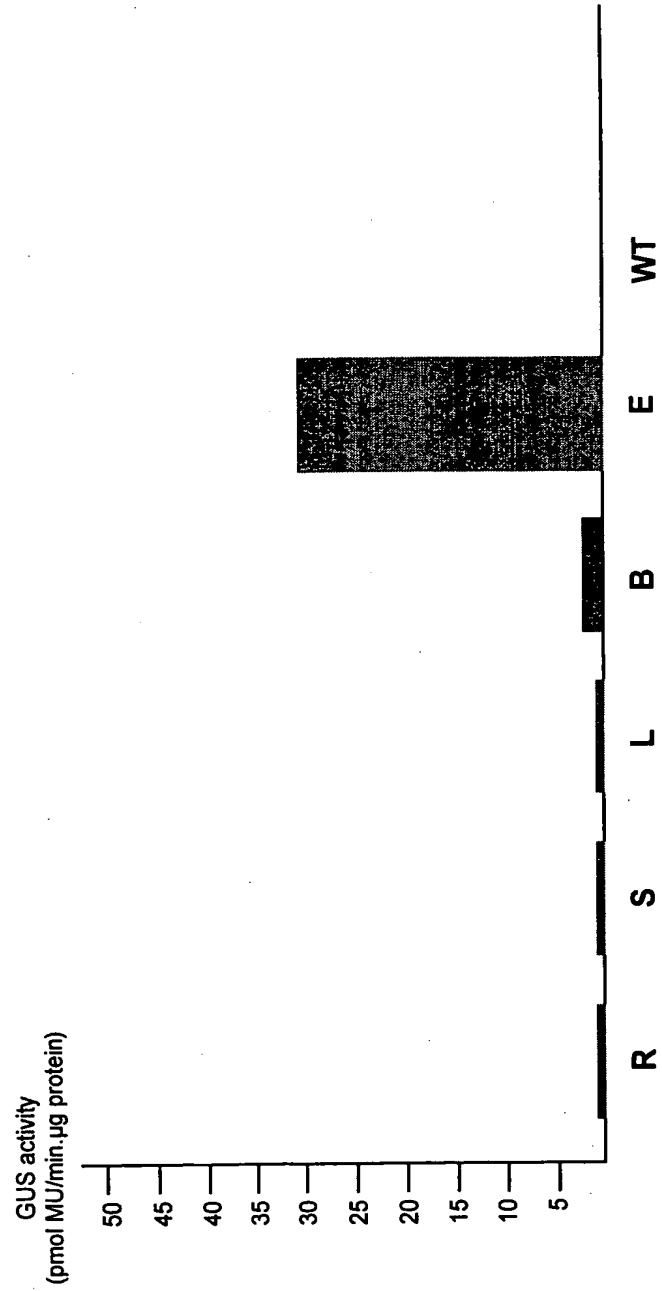


FIGURE 11

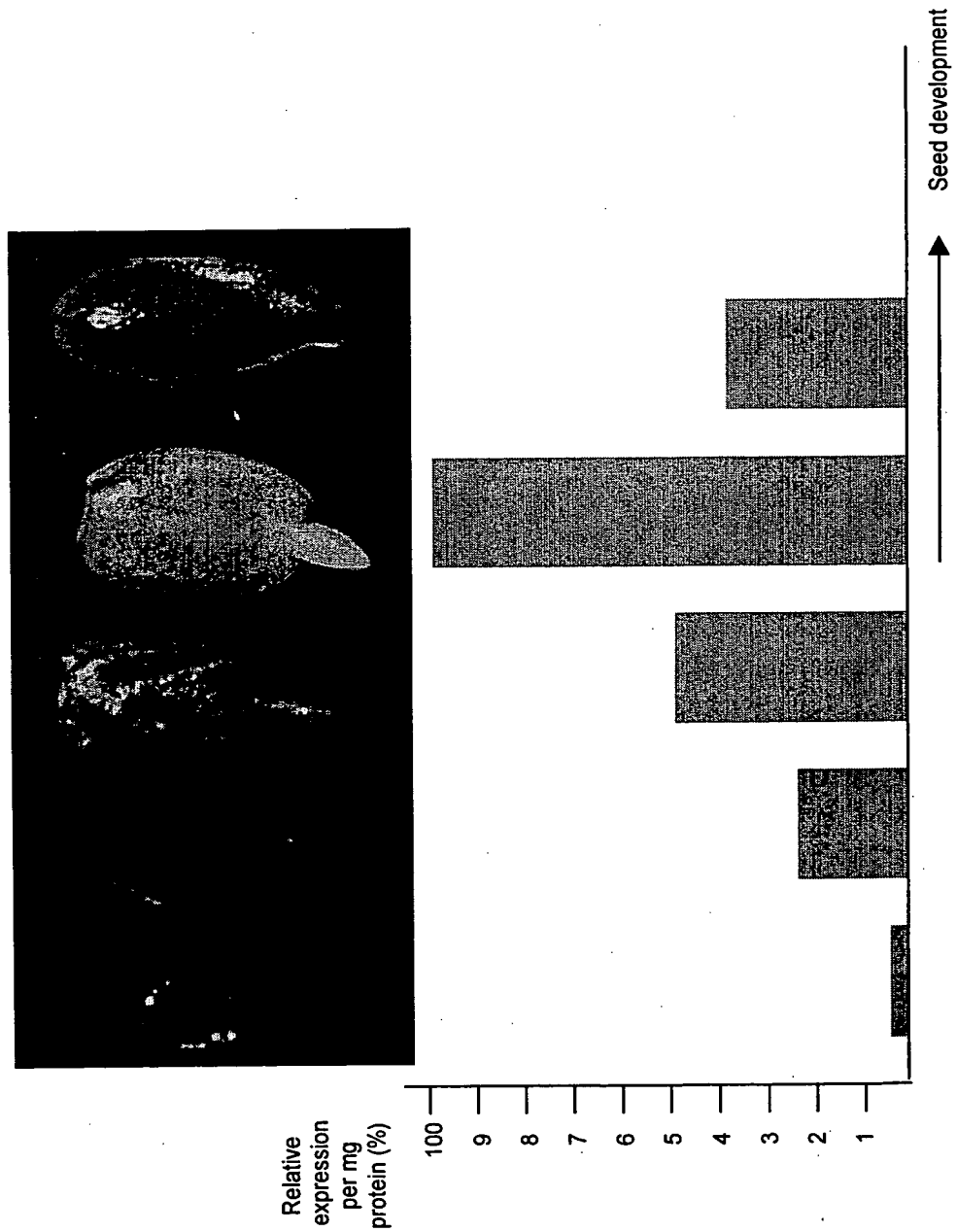


FIGURE 12

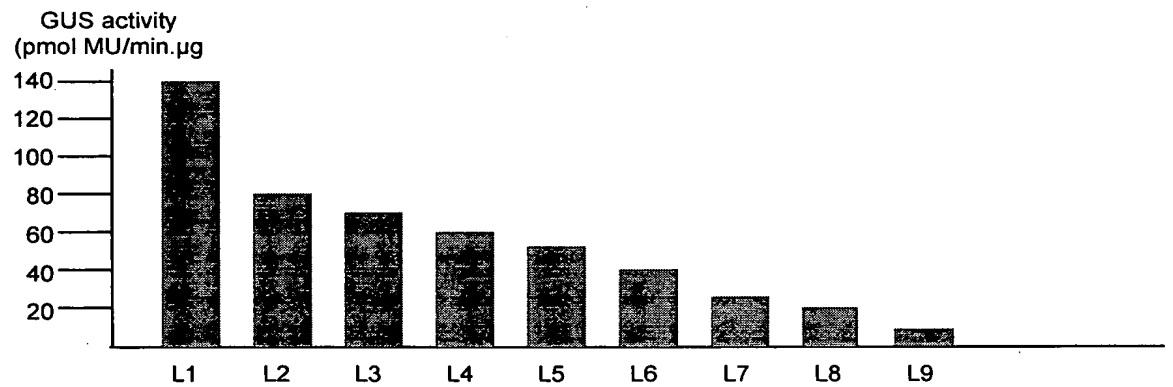


FIGURE 13

